

CLAIMS

- 1- An onboard modular optronics system (30, 60), comprising:
at least two optronics elements (41, 42) having a target line that
5 can be addressed in a given space,
a target line orientation and stabilization mechanism (23),
a mechanical structure designed to be the interface with the carrier
comprising
- a module (20) forming a section with three interfaces (21,
10 22A, 22B), including said interface (21) with the carrier and two lateral
interfaces (22A, 22B) that can receive a lateral module (32A, 32B),
a following cowl (26), in the form of a sphere with at least
one porthole (27) that is transparent in a spectral band of the optronics
system, and mounted in such a way as to be mobile relative-bearing-
15 wise on the module forming a section,
the optronics elements and the target line orientation and
stabilization mechanism being directly incorporated in the module forming a
section,
characterized in that
- 20 an optronics element is a camera (41),
another optronics element is a laser source (42) mounted on the
outside of the following cowl (26) in a space of the module (20) forming a
section, accessible through a hatch formed in said module.
- 25 2. The optronics system as claimed in claim 1, characterized in
that it is upgradeable.
3. The optronics system as claimed in one of the preceding
claims, in which the following cowl is retractable.
- 4- The optronics system as claimed in one of the preceding
claims, in which the target line orientation and stabilization mechanism is
30 mounted directly in the following cowl.
- 5- The optronics system as claimed in one of claims 1 to 3, in
which the target line orientation and stabilization mechanism is fixed on a
platform (40) suspended in the following cowl.
- 35 6- The optronics system as claimed in one of the preceding
claims, characterized in that, the or each target line being defined by one or

more optronics elements of given spectral wavebands, the or each porthole in the following cowl is suited to said spectral bands.

7- The optronics system as claimed in one of the preceding claims, characterized in that, in addition to the laser source, other optronics elements are outside the following cowl.

8- The optronics system as claimed in claim 7, in which the optronics elements outside the following cowl are mounted on a platform suspended in the following cowl.

9- The optronics system as claimed in one of the preceding claims, in which said lateral interfaces that can receive other modules are mechanical and/or electrical and/or hydraulic interfaces.

10 10- The optronics system as claimed in claim 9, equipped with two lateral modules mounted on said lateral interfaces, at least one of said modules being a fairing (501) to optimize the aerodynamic shape of the optronics system.

11- The optronics system as claimed in one of claims 9 or 10, equipped with two lateral modules mounted on said lateral interfaces, at least one of said modules being an environment control module (504) for cooling the system.

20 12- The optronics system as claimed in one of claims 9 to 11, equipped with two lateral modules mounted on said lateral interfaces, at least one of said modules being a module (503) for transmitting information to the ground.

13- The optronics system as claimed in one of claims 9 to 12, 25 equipped with two lateral modules mounted on said lateral interfaces, at least one of said modules being a module (502) for recording data.

14- The optronics system as claimed in one of claims 9 to 13, equipped with two lateral modules mounted on said lateral interfaces, at least one of said modules comprising an optronics element.

30 15- The optronics system as claimed in one of claims 9 to 14, designed to be onboard a drone, equipped with two lateral modules mounted on said lateral interfaces, at least one of said modules (508, 509, 512) comprising a landing gear.

16- A drone equipped with an optronics system as claimed in one 35 of the preceding claims.

17- A fuel tank (33) designed to be onboard a carrier and incorporating in its central part an optronics system as claimed in one of claims 1 to 8, the mechanical structure being reduced to said central module forming a section.

- 5 18- A method of implementing a set of onboard optronics systems as claimed in one of claims 1 to 15, each optronics system being suited to a given mission, comprising the construction of a central module common to the optronics systems of the assembly based on given specifications of each of said missions, then, for each system, the construction of lateral modules
10 specific to said mission.